

*IN THE UNITED STATES PATENT AND TRADEMARK OFFICE*

In re Application of:

LeMasson

Serial No.: 10/507,051

Filed: 9 September 2004

For: SLAT FOR LASER CUTTING MACHINE TABLE

Confirmation No.: 1265

Art Unit: 1725

Examiner: M. Alexandra Elve

Atty. Dckt: 041206.034

Customer No.: 25461

**A. Pre-Appeal Brief Request for Review**

Mail Stop: AF

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Sir:

Applicant requests review of the rejection in the above-referenced application.

This Request is being filed with a Notice of Appeal.

The Review is requested for the reasons stated on the attached sheets.

I am the Attorney of Record.

Respectfully submitted,

/s/ Kerri A. Hochgesang  
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Date: 4 June 2008

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## B. Reasons For Review Request

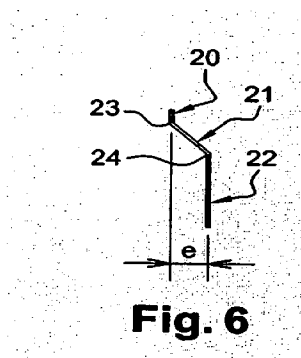
### 1. Status of Claims and Grounds of Rejection

Claims 1-6, 8-14, and 24-27 are pending in this Application. Claims 1-6 and 9-14 stand rejected under 35 U.S.C. § 103(a) as unpatentable in view of European Patent Number EP 1,391,080 (“EP ‘080”) in combination with United States Patent Number 5,167,903 to *Anderson* (“*Anderson*”) (collectively, the “Cited References”). Claims 8 and 23-27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Anderson* in view of EP ‘080.

### 2. The Claimed Invention

Independent Claim 1 is an illustrative claim from the subject application:

1. Slat for a laser beam-cutting machine table, comprising a trough which contains a plurality of juxtaposed inserts arranged parallel or substantially parallel to one another, wherein each insert takes the form of a folded thin sheet-metal plate comprising at least two parts connected along a fold line [23], a first part [20] arranged substantially parallel to the direction of incidence of the laser beam and constituting a support strip whose free upper edge forms a support element for the product to be cut, wherein said free upper edge is distinct from the fold line [23] of said sheet-metal plate, and a second part [21] which is inclined with respect to the direction of incidence of the laser beam and constitutes an oblique strip for deflecting the laser beam.



claimed invention

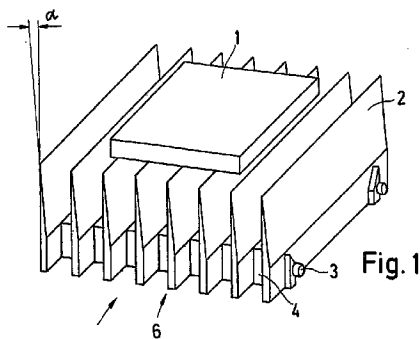
### 3. Argument

- (a) *The Cited References do not teach each and every limitation of the claimed invention, and as such, do not render it obvious.*

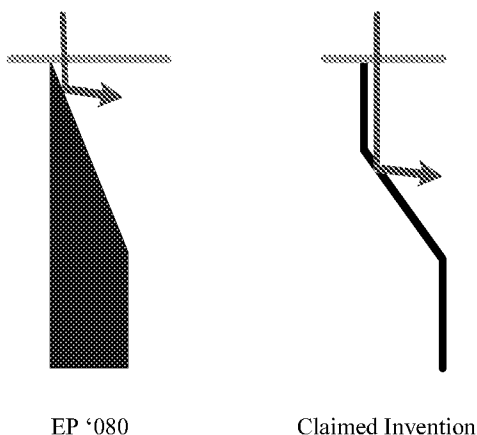
“To establish a prima facie case of obviousness of a claimed invention all the claimed limitations must be taught or suggested by the prior art.” *In re Wilson*, 424 F.2d 1382, 1385, 165 U.S.P.Q. 44, 496 (C.C.P.A. 1970); *see KSR Int’l. Co. v. Teleflex, Inc.*, 550 U.S. \_\_\_, 127 S.Ct. 1727 (2007); *see also* MPEP 2142.

The references cited by the Examiner fail to teach or suggest a support strip with: **(1) a free upper edge forming (2) a support element** for the product to be cut. The support strip must be connected **(3) by a folded line** to an oblique strip inclined with respect to the direction of the incidence of a laser beam, and **(4) the free upper edge of the support element is distinct from the fold line**. See Applicant Remarks dated 11-26-07, page 2. The Examiner has not even *attempted* to identify either of limitations (1) or (4) above in the Cited References. In fact, *neither* of the Cited References teach or suggest support elements formed by a free upper edge connected by a folded line to an oblique strip, where the free upper edge is distinct from the folded line.

With regard to limitations (2) and (3) above (the “support element” connected “by a folded line” to an oblique strip), the Examiner only mentions that EP ‘080 discloses a “support element constructed in the forms of strips.” The “folded line” limitation is not discussed at all by the Examiner with regard to Claim 1. With regard to Claim 8, which also iterates the same “folded line” limitation, the Examiner admits that EP ‘080 fails to disclose this limitation, but instead suggests that the angle formed by the right and left side of the “support element” [2] is equivalent to this limitation. See Paper 20080204, page 6. The Examiner states, “the angle (fold) of the support, as taught by EP (‘080) functions the same as a fold which obviates interfering reflections from the laser-cutting beam.”



It is not the function of the “fold,” however, to obviate reflections from a laser beam. This is the function of the “second part which is inclined with respect to the direction of incidence of the laser beam.” The Examiner altogether fails to show how EP ‘080 teaches or suggests the “functional equivalent” of the “fold” in the context of the Applicant’s invention. In the claimed invention, the support strip is connected to the oblique strip by a fold. The function of this configuration is to “distance the cut material 4 from the impact of the laser beam on the oblique strip 21, thus limiting the effects of possible pollution or damage to the material.” Application, page 6, lines 12-14. This is illustrated in the figures below:



The support strip of the claimed invention always separates the supported object (fabric) at least a minimum distance from the deflected laser beam. By contrast, the solid support disclosed in the prior art EP ‘080 reference does not always separate the supported object (fabric) at least a minimum distance from the deflected laser beam. In fact, if the laser beam were to hit very close to the tip of the “support” of EP ‘080, the laser beam would deflect directly below and damage the supported object. Deflection of the laser beam directly below the supported object is the very problem solved by the configuration of the claimed invention. In the claimed invention, the laser beam will never deflect closer to the supported object than the distance between the support end and the fold.

Further, the EP ‘080 reference lacks a support strip having: (1) one free end supporting the fabric and (2) one end connected by a fold to a deflecting surface. Consequently, the Examiner has shown neither how the “support” of EP ‘080 has a fold or a distancing support strip, nor how the structure of EP ‘080 allegedly exhibits “equivalent functions.”

- (b) *The Examiner failed to provide factual evidence that the “knife edge support” of EP ‘080 is “functionally equivalent” to Applicant’s “fold.”*

In support of her conclusion that the “angle” of EP ‘080 was the functional equivalent of Applicant’s “fold line,” the Examiner stated, “The angle (fold) of the support, as taught by EP (‘080) functions the same as a fold which obviates interfering deflections from the laser-cutting beam.” See Paper 20080204, page 6. As illustrated above, that is clearly not the case, because laser beam deflections with the EP ‘080 prior art configuration can occur directly below the supported object. The Examiner cites to *In re Ruff* for her obviousness determination, stating only: “substitution of known equivalent structures. *In re Ruff*, 118 U.S.P.Q. 343 (C.C.P.A. 1958).” *In re Ruff* does not stand for this proposition. In fact, *In re Ruff* illustrates how the Examiner has committed a legal error.

In *In re Ruff*, the Court of Customs and Patent Appeals reversed the Examiner’s finding of obviousness when the Examiner failed to produce evidence that one claimed limitation was equivalent to another, even though the Applicant himself stated that the limitations were equivalent in his own application. *Id.* at 348-49. The CCPA instructed that Examiners are required to point to some prior art as evidence that two limitations are equivalent. *Id.* at 346-47. “A finding of equivalence is a determination of fact.... Like any other issue of fact, final determination requires a balancing of...[] weight of evidence.” *Id.* (citing *Graver Tank & Mfg. Co. v. Linde Air Products Co.*, 339 U.S. 605, 85 U.S.P.Q. 328, 330-331 (1950)). “Functional equivalence” cannot be used as a tool to relieve examiners of the duty to search the prior art. *Id.* at 347. Here, the Examiner failed to follow the very law she cited in the Office Action, and provided no evidence in the prior art that a thin sheet having a “fold” is the functional equivalent of a solid structure having an “angle.”

- (c) *The mere existence of a “functional equivalent” does not equate a finding of obviousness.*

The *In re Ruff* case also states, “that two things are actually equivalents, in the sense that they will both perform the same function, is not enough to bring into play the rule that when one of them is in the prior art the use of the other is obvious and cannot give rise to a patentable invention.” *Id.* Structures which are “functionally equivalent to each other are not necessarily obvious in view of one another.” *In re Scott*, 139 U.S.P.Q. 297 (1963) (holding that even though

two structures were functionally equivalent, the disclosure of the use of one structure did not fairly suggest the use of the other, and thus the examiner's finding of obviousness was in error and premised on improper hindsight reconstruction). Similarly, in this case, the Examiner does not and *cannot* explain how the disclosure of the solid support structure in EP '080, which deflects the laser beam close to the supported fabric, fairly suggests the thin, folded structure having a separate support element, which ensures that the laser beam is always deflected at a minimum distance away from the supported fabric, as defined by the claims of the application. The Examiner's finding of obviousness based only upon alleged "functional equivalence" is also based upon hindsight reconstruction and is not supported by the clear functional difference between the solid support structure of the prior art and the folded support structure of the claimed invention.

In view of the foregoing, the Applicant respectfully submits that the rejection of the claims is improper because the Examiner fails to establish that the subject matter claimed herein is *prima facie* obvious in view of the Cited References relied upon in the Office Action. Withdrawal of the rejections at the Examiner's earliest convenience is respectfully requested.